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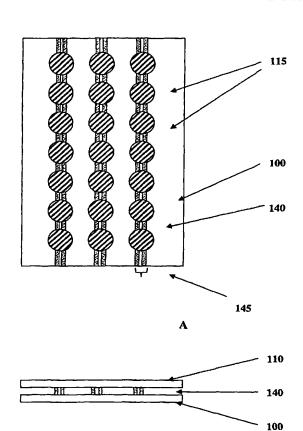
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(54) Title: METHODS AND DEVICES FOR HOLDING A COMPOSITION



В

(57) Abstract: Methods and devices for holding a composition are described. A first embodiment includes a support substrate (100) that supports an array of film segments (115) having an active agent-containing composition, the film segments being attached to the support substrate by a pattern of adhesive (145). Another embodiment involves a support substrate supporting film segments having the active agent-containing composition, the embodiment including a sealing material that is heat sealed to the support substrate to contain the film segments. A third embodiment involves a substrate holding the film segments in blister cavities; a sealing material is attached to the substrate to contain the segments in the blister cavities. Other embodiments refer to cold sealing support substrates and sealing material, methods of delivering a composition without separating a film segment from a substrate backing, and other alterations to the sealing material.

GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B65D73/00 A61J1/03 B65D75/34 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 B65D A61J Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Χ US 6 410 048 B1 (FOTINOS SPIROS) 1-4,6-8 25 June 2002 (2002-06-25) column 3, line 52 - line 64; figures 7a,7b 5 51-62 the whole document Α FR 2 709 288 A (SIEMENS MATSUSHITA 5 COMPONENTS) 3 March 1995 (1995-03-03) abstract; figures 2,3 WO 99/17738 A (LAVIPHARM LAB INC) 15 April 1999 (1999-04-15) Х 1-4,6-8 Α the whole document 51-62 DE 804 885 C (BERNHARD ZAMEK) Α 1-8. 4 May 1951 (1951-05-04) 51-62 the whole document -/--X Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the call. "O" document referring to an oral disclosure, use, exhibition or "P" document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 2 7. 05. 2005 19 October 2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 Ni. - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Pernice, C

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C (Continuation) DO	CUMENTS CONSIDERED TO BE RELEVANT	101/102201/003011
	of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A EP PRI	0 559 440 A (FOUR LAKES LABEL & NTING) 8 September 1993 (1993-09-08) whole document	1-8, 51-62
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onal application No. PCT/US2004/009044

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple Inventions in this international application, as follows:
see additional sheet
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-8, 51-62
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 51-62

A device for holding an active agent-containing composition, the device comprising:

- a support substrate;

- a pattern of adhesive in contact with one side of the substrate; and

- an array of discrete film segments removably attached to the substrate by contact with the adhesive, each film segment including the active agent-containing composition. A method for holding an active agent-containing composition, the method comprising:

- providing a substrate, one side of the substrate in

contact with a pattern of adhesive:

- removably attaching a film including an active agent-containing composition to the substrate; and - segmenting the film attached to the final support substrate into an array of discrete film segments.

2. claims: 9-50, 63-91

A device for holding a composition, the device comprising:

- a support substrate:

- an array of discrete film segments removably attached to the substrate, each film segment including the composition.
- a sealing material covering the array of discrete film segments, the sealing material reattachably adhering to one side of the substrate, and where a selected portion of the sealing material includes a non stick coating.
A method for holding a composition, the method comprising: superposing a sealing material over the array of discrete film segments attached to the support substrate, the seling material including a non-stick coating on at least a portion of the sealing material, and where the non-stick coating reduces adhesion between the surface of the sealing material and at least one film segment when the sealing material contacts the at least one film segment.

3. claims: 92-103

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A method for holding an active agent-containing composition. the method comprising:

providing a substrate;

- forming a plurality of blister cavities in the substrate - covering the substrate with the active agent-containing composition film;

- displacing segments of the film into each blister cavity;

- removing the film unassociated with the film segments;

- superposing a sealing material in contact with the

substrate and covering the film segments; and

- attaching the sealing material at a plurality of ponts where the sealing material and substrate are in contact.

4. claims: 104-111

A method for applying a composition in a dosage unit to a dermal surface of a patient comprising:

- providing the dosage unit including the composition on a side that is larger in area than the dosage unit;

- holding the substrate without touching the dosage unit; - bringing the substrate towards the dermal surface of the patient to bring the dosage unit into contact with the dermal surface; and

 pressing against the substrate to apply the composition to the dermal surface.

5. claims: 112-117

A method for holding an active agent-containing composition. the method comprising:

- intermittently applying a solution containing an active agent-containing composition to a substrate; and

- drying the intermittently applied solution to form film segments that are removably attached to the substrate

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Patent document	Publication		Patent family Publication	
cited in search report	date	member(s)		date
US 6410048 B	25-06-2002	FR AU AU CA DE DE EP ES WO JP 2	2770843 A1 206614 T 751698 B2 1162099 A 2310138 A1 69802005 D1 69802005 T2 1030657 A1 2168803 T3 9925326 A1 2001522877 T	14-05-1999 15-10-2001 22-08-2002 07-06-1999 27-05-1999 15-11-2001 11-07-2002 30-08-2000 16-06-2002 27-05-1999 20-11-2001 29-04-2002
FR 2709288 A	03-03-1995	DE CN FR JP SI	9312834 U1 1105330 A 2709288 A1 7061460 A 9400274 A	16-12-1993 19-07-1995 03-03-1995 07-03-1995 30-04-1995
WO 9917738 A	15-04-1999	AU AU CA EP NZ TR WO US	738512 B2 9787398 A 2317066 A1 1024788 A1 504160 A 200001789 T2 9917738 A1 6335388 B1	20-09-2001 27-04-1999 15-04-1999 09-08-2000 31-08-2001 23-10-2000 15-04-1999 01-01-2002
DE 804885 C	04-05-1951	NONE		
EP 0559440 A	08-09-1993	US AU CA EP JP MX	5161687 A 3313193 A 2089801 A1 0559440 A1 9016088 A 9301191 A1	10-11-1992 09-09-1993 07-09-1993 08-09-1993 17-01-1997 31-08-1994